

CHAMELEON OPTICS, INC.

Philadelphia PA

Mission and Needs

- **Our mission is to drive wide adoption of solar control glazing by commercializing Electrochromic Window Film**
- **We are here to**
 - learn from and make contacts with the VC community
 - seek stage A investment of \$2M

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Business Model

- **Business Concept**

- Commercialize low-cost, proprietary Electrochromic Window Film
- Penetrate new, and then retrofit market in architectural glass
- Maintain low capital investment by manufacturing externally and selling through distributors
- Maintain control by keeping Marketing, Sales, and Technical Services internal to Chameleon Optics

- **Current Corporate Structure**

- S-Corporation founded within University City Science Center business incubator (Philadelphia PA) on March 10, 1998
- Co-Owned by Paul Martin and Marie Di Pasquale

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Product: Electrochromic Window Film

- **Description**

- Flexible film that cycles from transparent to dark blue with applied voltage
- Manufactured in roll form on commercial slot-die coating equipment
- Applied to interior of architectural glass to make electrochromic window

- **Advantages to End User**

- Energy savings (essentially controls light admission from full on to full off)
- Privacy/Security
- Low cost (\$60/m² vs. >\$100/m² for rigid electrochromic windows)
- Easy, low-tech installation (opening retrofit and replacement market)

- **Barriers to Competition**

- U.S. Patent 6,456,418
- Proprietary know-how and technical experience

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Flexible Electrochromic Film

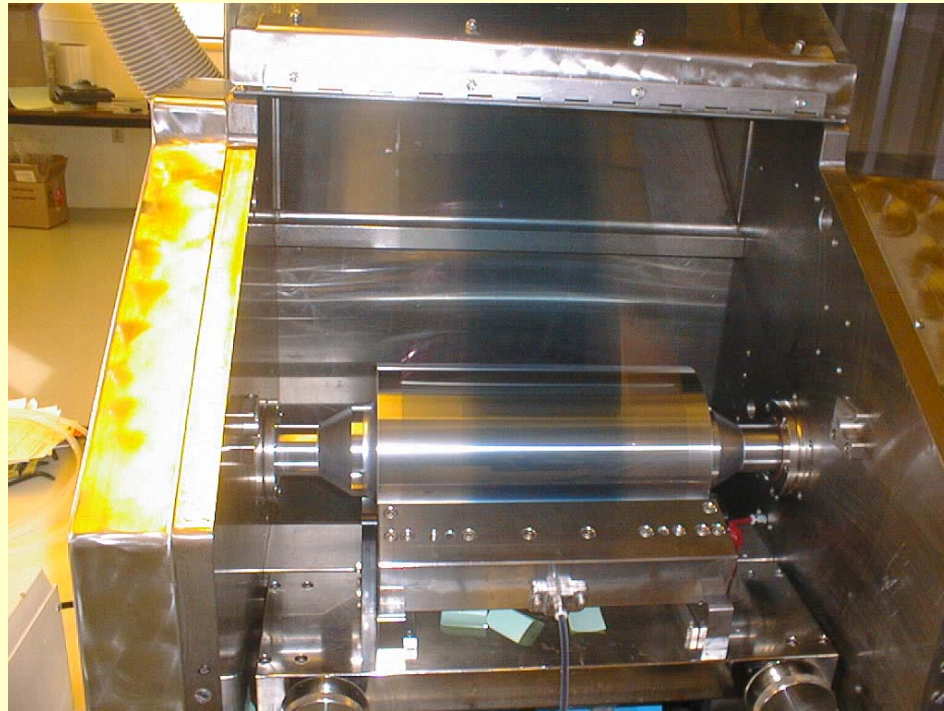


Changes Reversibly from Clear to Dark Blue

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Coating Electrochromic Film



Die Coating of Film for DOE Contract

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Market

- **Market by Segment for Passive Solar Control Film (PSCF)**

Market Segment	Glass in Segment	Mkt Penetration by PSCF	Volume PSCF Sold	PSCF Market	Market Growth
Architectural - new	300M m ² /yr	5%	15M m ² /yr	\$150M/yr	≥ 20%/yr
Architectural - retrofit	3B m ²	0%	0	0	-
Automotive-new	150M m ² /yr	10%	15M m ² /yr	\$150M/yr	≤ 20%/yr
Automotive-retrofit	1B m ²	0%	0	0	-

- **Sanity Check**

- MSC reported a \$250-\$280M Worldwide PSCF Market in 2001

- **Producers of Passive Solar Control Film**

- MSC (Bekaert)
- 3M
- Others, including Courtaulds, Southwall, Teijin Films, etc.

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Industry

- **Large Manufacturers Distribute to Numerous Contractors**
- **Industry Receptive to New Products; Big Upside**
- **Strong Growth in Architectural Window Films Driven by**
 - Higher energy costs (need for energy conservation)
 - Security concerns
 - Construction boom
- **Automotive Window Film Market May Be Saturated**
- **Electrochromic Window Film Can be Positioned As**
 - Much lower cost and much easier to install than rigid electrochromics
 - Cost competitive and offering more solar control/security than PSCF's
 - A product for both the new and retrofit market

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People

- **Paul J. Martin, Ph.D. , M.B.A.**
 - President and co-founder, Chameleon Optics
 - 25 years experience in commercializing electronic and optical coatings
 - Four U.S. Patents
 - Former chemist at DuPont
- **Marie Di Pasquale**
 - Vice-president and co-founder, Chameleon Optics
 - 12 years experience in formulating specialty chemicals
 - One U.S. Patent
 - Former chemist at Akzo Chemie
- **CEO with relevant experience and CFO sought**

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Financial

Pro Forma Income Statement

Sales Volume (M m²)

Selling Price (\$/m²)

Sales (\$M)

Cost of Goods Sold

Materials (\$M)

Toll Manufacture (\$M)

Gross Profit (\$M)

Sales/G&A Expense (\$M)

Depreciation Expense (\$M)

R&D Expense (\$M)

PTOI (\$M)

Income Taxes (\$M)

Effective Tax Rate

Total-ATOI (\$M)

ATOI Margin

Capital Investment (\$M)

2005 EST	2006 EST	2007 EST	2008 EST	2009 EST
-	0.3	2.5	5.0	6.0
-	80	70	60	60
-	24.0	175.0	300.0	360.0
-	10.5	50.0	50.0	60.0
-	3.0	12.5	12.5	15.0
0.0	10.5	112.5	237.5	285.0
1.0	1.4	4.1	7.4	8.8
0.5	0.5	1.0	1.8	2.5
1.1	1.3	2.3	3.9	6.0
-2.6	7.3	105.1	224.4	267.7
-1.0	2.8	40.0	85.3	101.7
38%	38%	38%	38%	38%
-1.6	4.5	65.2	139.1	165.9
N/A	19%	37%	46%	46%

0.5

0.5

1.0

1.8

2.5

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Financial

Pro Forma Cash Flow (\$M)

Cash Flow from ATOI (\$M)
Depreciation & Amort. (\$M)
(Inc)/Dec in Net WC (\$M)
Cash Flow from Oper. (\$M)
Capital Expenditures (\$M)
Net Cash Flow (\$M)

2005 EST	2006 EST	2007 EST	2008 EST	2009 EST
-1.6	4.5	65.2	139.1	165.9
0.5	0.5	1.0	1.8	2.5
0.0	-4.8	-30.2	-25.0	-12.0
-1.1	0.2	36.0	115.9	156.4
-0.5	-0.5	-1.0	-1.8	-2.5
-1.6	-0.3	35.0	114.1	153.9

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Achievements to Date

- **1998: Company founded**
- **1999: Flexible electrochromic devices invented**
- **2000: PA-funded “engagement” with Drexel University**
- **2001: DOE contract to prove Window Film manufacture**
- **2002: DOD contract for Laser Resistant Coatings**
- **2002: U.S. patent issued**
- **2004: Capitalization sought**

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Exit Strategy for Stage A Investors

- **Acquisition**
- **IPO**
- **Private equity placement based on cash flow**

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Success Factors

- **Identification of CEO and CFO**
- **Identification of suitable manufacturing partner**
- **Completion of EWF development through manufacturing trials**
- **Strong market acceptance of product**
- **Efficient manufacturing & distribution**

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- Questions? Interest? Please contact:

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